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\* \* \* \* \* \* \* \* \* \* \* \* Welcome to STN International \* \* \* \* \* \* \* \* \* \* \* \*

NEWS 1 Web Page for STN Seminar Schedule - N. America  
NEWS 2 AUG 06 CAS REGISTRY enhanced with new experimental property tags  
NEWS 3 AUG 06 FSTA enhanced with new thesaurus edition  
NEWS 4 AUG 13 CA/Caplus enhanced with additional kind codes for granted patents  
NEWS 5 AUG 20 CA/Caplus enhanced with CAS indexing in pre-1907 records  
NEWS 6 AUG 27 Full-text patent databases enhanced with predefined patent family display formats from INPADOCDB  
NEWS 7 AUG 27 USPATOLD now available on STN  
NEWS 8 AUG 28 CAS REGISTRY enhanced with additional experimental spectral property data  
NEWS 9 SEP 07 STN AnaVist, Version 2.0, now available with Derwent World Patents Index  
NEWS 10 SEP 13 FORIS renamed to SOFIS  
NEWS 11 SEP 13 INPADOCDB enhanced with monthly SDI frequency  
NEWS 12 SEP 17 CA/Caplus enhanced with printed CA page images from 1967-1998  
NEWS 13 SEP 17 Caplus coverage extended to include traditional medicine patents  
NEWS 14 SEP 24 EMBASE, EMBAL, and LEMBASE reloaded with enhancements  
NEWS 15 OCT 02 CA/Caplus enhanced with pre-1907 records from Chemisches Zentralblatt  
NEWS 16 OCT 19 BEILSTEIN updated with new compounds  
NEWS 17 NOV 15 Derwent Indian patent publication number format enhanced  
NEWS 18 NOV 19 WPIX enhanced with XML display format  
NEWS 19 NOV 30 ICSP reloaded with enhancements  
NEWS 20 DEC 04 LINPADOCDB now available on STN  
NEWS 21 DEC 14 BEILSTEIN pricing structure to change  
NEWS 22 DEC 17 USPATOLD added to additional database clusters  
NEWS 23 DEC 17 IMSDRUGCONF removed from database clusters and STN  
NEWS 24 DEC 17 DGENE now includes more than 10 million sequences  
NEWS 25 DEC 17 TOXCENTER enhanced with 2008 MeSH vocabulary in MEDLINE segment  
NEWS 26 DEC 17 MEDLINE and LMEDLINE updated with 2008 MeSH vocabulary  
NEWS 27 DEC 17 CA/Caplus enhanced with new custom IPC display formats  
NEWS 28 DEC 17 STN Viewer enhanced with full-text patent content from USPATOLD  
NEWS 29 JAN 02 STN pricing information for 2008 now available  
NEWS 30 JAN 16 CAS patent coverage enhanced to include exemplified prophetic substances  
NEWS 31 JAN 28 USPATFULL, USPAT2, and USPATOLD enhanced with new custom IPC display formats  
NEWS 32 JAN 28 MARPAT searching enhanced  
NEWS 33 JAN 28 USGENE now provides USPTO sequence data within 3 days of publication  
NEWS 34 JAN 28 TOXCENTER enhanced with reloaded MEDLINE segment

NEWS 35 JAN 28 MEDLINE and LMEDLINE reloaded with enhancements  
NEWS 36 FEB 08 STN Express, Version 8.3, now available  
NEWS 37 FEB 20 PCI now available as a replacement to DPCI

NEWS EXPRESS FEBRUARY 08 CURRENT WINDOWS VERSION IS V8.3,  
AND CURRENT DISCOVER FILE IS DATED 20 FEBRUARY 2008

NEWS HOURS STN Operating Hours Plus Help Desk Availability  
NEWS LOGIN Welcome Banner and News Items  
NEWS IPC8 For general information regarding STN implementation of IPC 8

Enter NEWS followed by the item number or name to see news on that specific topic.

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FILE 'HOME' ENTERED AT 14:01:05 ON 22 FEB 2008

FILE 'REGISTRY' ENTERED AT 14:01:16 ON 22 FEB 2008  
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Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 21 FEB 2008 HIGHEST RN 1005032-28-9  
DICTIONARY FILE UPDATES: 21 FEB 2008 HIGHEST RN 1005032-28-9

New CAS Information Use Policies; enter HELP.USAGETERMS for details.

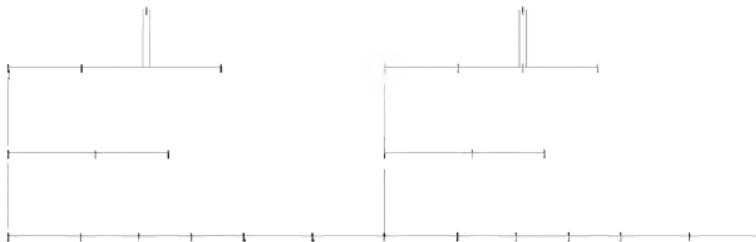
TSCA INFORMATION NOW CURRENT THROUGH January 9, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

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Uploading C:\Program Files\Stnexp\Queries\10781894.str



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chain bonds :
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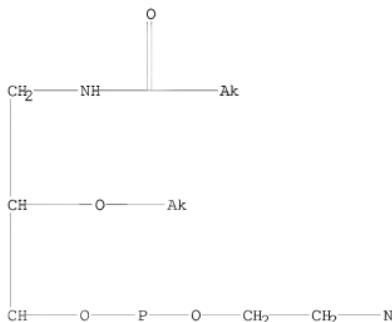
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Match level :
1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS
10:CLASS 11:CLASS 12:CLASS 13:CLASS 14:CLASS 15:CLASS

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L1        STRUCTURE UPLOADED

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L1 HAS NO ANSWERS  
L1                    STR



Structure attributes must be viewed using STN Express query preparation.

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FULL SCREEN SEARCH COMPLETED -      4722 TO ITERATE

100.0% PROCESSED      4722 ITERATIONS          70 ANSWERS
SEARCH TIME: 00.00.01

L2      70 SEA SSS FUL L1

=> file medline caplus wpids uspatfull
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FULL ESTIMATED COST          ENTRY          SESSION
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FILE 'CAPLUS' ENTERED AT 14:01:45 ON 22 FEB 2008
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FILE 'WPIDS' ENTERED AT 14:01:45 ON 22 FEB 2008
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FILE 'USPATFULL' ENTERED AT 14:01:45 ON 22 FEB 2008
CA INDEXING COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

=> s 12
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SAMPLE SCREEN SEARCH COMPLETED -      13 TO ITERATE

100.0% PROCESSED      13 ITERATIONS          1 ANSWERS
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS:  ONLINE  **COMPLETE**
                        BATCH   **COMPLETE**
PROJECTED ITERATIONS:    22 TO      238
PROJECTED ANSWERS:        1 TO       40

L3      48 L2

=> s 13 and ?virus?
L4      23 L3 AND ?VIROUS?

=> s 14 and coronavirus or herpes or togavirus
L5      127186 L4 AND CORONAVIRUS OR HERPES OR TOGAVIRUS

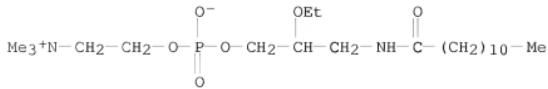
=> s 14 and (coronavirus or herpes or togavirus)
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=> d 16 1-12 ibib, abs, hitstr

L6 ANSWER 1 OF 12  CAPLUS  COPYRIGHT 2008 ACS on STN
ACCESSION NUMBER:      2005:904330  CAPLUS
DOCUMENT NUMBER:      143:222464
TITLE:                Phospholipids for the treatment of infection by
                      togaviruses, herpes viruses
                      and coronaviruses
INVENTOR(S):          Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng;
                      Read, Russ H.; Morris-Natschke, Susan L.; Ishaq,

```





L6 ANSWER 2 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:388263 CAPLUS  
 DOCUMENT NUMBER: 125:49273  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq, Khalid S.  
 PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina at Chapel Hill  
 SOURCE: PCT Int. Appl., 53 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606620	A2	19960307	WO 1995-US10111	19950807
WO 9606620	A3	19960613		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2197319	A1	19960307	CA 1995-2197319	19950807
AU 9532166	A	19960322	AU 1995-32166	19950807
EP 781138	A2	19970702	EP 1995-928365	19950807
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 10506619	T	19980630	JP 1995-508773	19950807
EP 1852121	A2	20071107	EP 2007-16369	19950807
EP 1852121	A3	20071121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 5962437	A	19991005	US 1997-793470	19970502
US 7129227	B1	20061031	US 1999-412539	19991004
US 2004259845	A1	20041223	US 2004-889127	20040713
US 7135584	B2	20061114		
US 2005080050	A1	20050414	US 2004-943923	20040920
US 7141557	B2	20061128		
JP 2007056033	A	20070308	JP 2006-278049	20061011
US 2007099870	A1	20070503	US 2006-588313	20061027
US 7294621	B2	20071113		
US 2007105811	A1	20070510	US 2006-588308	20061027
US 7294619	B2	20071113		
US 2007105812	A1	20070510	US 2006-588311	20061027
US 7294620	B2	20071113		
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		US 1994-297416	A 19940829	
		US 1994-314901	A 19940929	
		EP 1995-928365	A3 19950807	
		JP 1996-508773	A3 19950807	
		WO 1995-US10111	W 19950807	
		US 1997-793470	A3 19970502	

US 1999-412539

B1 19991004

US 2004-889127

A3 20040713

US 2004-943923

A3 20040920

OTHER SOURCE(S): MARPAT 125:49273

AB A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and *herpes viruses*, is disclosed.The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. For example, 1-dodecanamido-2-decylpropyl-3-phosphocholine showed IC<sub>50</sub> value of 0.14 μM against HIV-1 syncytial plaque formation.

IT 178172-98-0 178172-99-1 178173-00-7

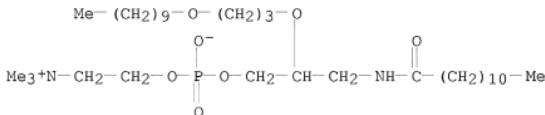
178173-01-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phospholipids for treating viral infections and tumors)

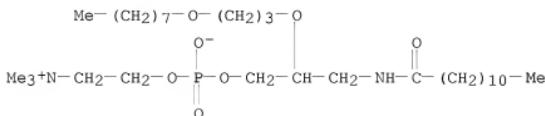
RN 178172-98-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



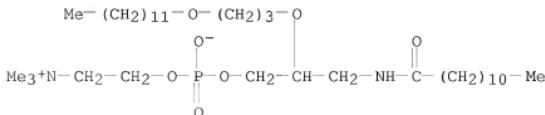
RN 178172-99-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 CAPLUS

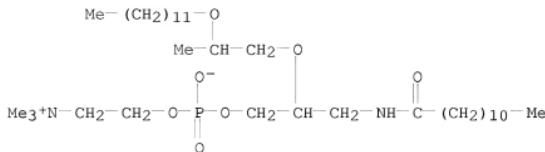
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RN 178173-01-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-

hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 3 OF 12 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501

DOCUMENT TYPE: CODEN: ARHRE7; ISSN: 0889-2229

LANGUAGE: Journal  
English

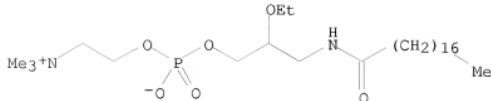
AB A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = 0.2-1.4 μM) with alkoxy, alkylthio, or alkylamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = 0.33-0.63 μM) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

IT 112989-02-3

RL: BIOL (Biological study)  
(human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 4 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2007121606 USPATFULL

TITLE: Lipid analogs for inhibiting HIV-1 activity

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

NUMBER	KIND	DATE
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PATENT INFORMATION: US 2007105812 A1 20070510  
 US 7294620 B2 20071113  
 APPLICATION INFO.: US 2006-588311 A1 20061027 (11)  
 RELATED APPLN. INFO.: Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility

FILE SEGMENT: APPLICATION

LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 18

EXEMPLARY CLAIM: 1-106

LINE COUNT: 898

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

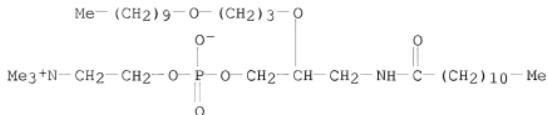
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178173-01-8

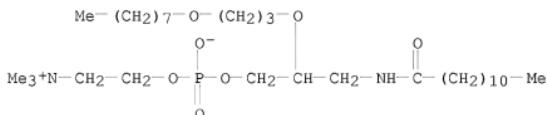
(phospholipids for treating viral infections and tumors)

RN 178172-98-0 USPATFULL

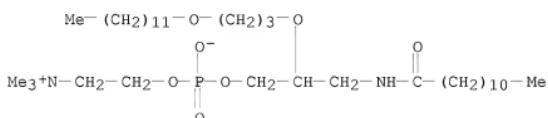
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



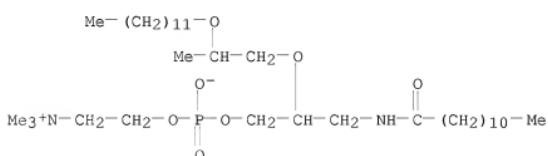
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RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 5 OF 12 USPATFULL on STN  
 ACCESSION NUMBER: 2007121605 USPATFULL  
 TITLE: Lipid analogs for inhibiting the activity of hepatitis B antigen  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

PATENT ASSIGNEE(S): Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Wake Forest University (U.S. corporation)  
 University of North Carolina at Chapel Hill (U.S. corporation)

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	US 7294619	B2	20071113
APPLICATION INFO.:	US 2006-588308	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-889127, filed on 13 Jul 2004, GRANTED, Pat. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		

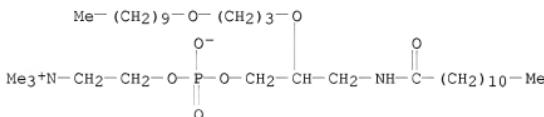
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 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US  
 NUMBER OF CLAIMS: 20  
 EXEMPLARY CLAIM: 1-106  
 LINE COUNT: 899  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

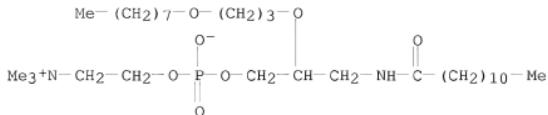
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8  
 (phospholipids for treating viral infections and tumors)

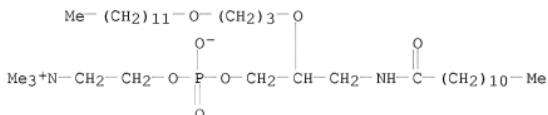
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 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



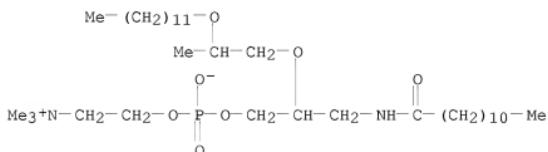
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RN 178173-01-8 USPATFULL  
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L6 ANSWER 6 OF 12 USPATFULL on STN  
 ACCESSION NUMBER: 2007:114796 USPATFULL  
 TITLE: Lipid analogs for combating tumors  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007099870	A1	20070503
	US 7294621	B2	20071113
APPLICATION INFO.:	US 2006-588313	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US		

1994-297416, filed on 29 Aug 1994, ABANDONED  
DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE  
NW, WASHINGTON, DC, 20004, US  
NUMBER OF CLAIMS: 19  
EXEMPLARY CLAIM: 1-106  
LINE COUNT: 900

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

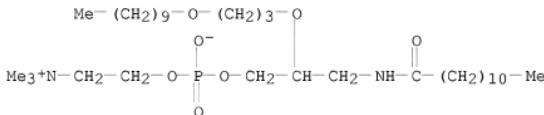
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8

(phospholipids for treating viral infections and tumors)

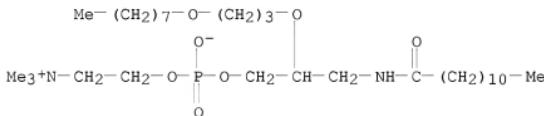
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



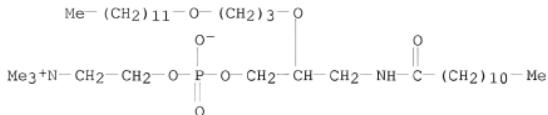
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

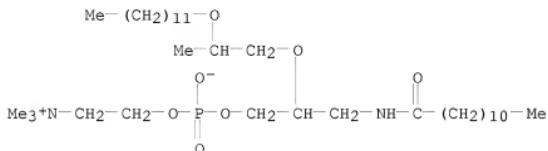


RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 7 OF 12 USPATFULL on STN  
 ACCESSION NUMBER: 2006:284487 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
                  Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
                  Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston Salem, NC, UNITED STATES (U.S. corporation)  
                  University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7129227	B1	20061031
APPLICATION INFO.:	US 1999-412539		19991004 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-793470, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		

DOCUMENT TYPE: Utility  
 FILE SEGMENT: GRANTED  
 PRIMARY EXAMINER: Coleman, Brenda  
 LEGAL REPRESENTATIVE: Morgan Lewis & Bockius LLP  
 NUMBER OF CLAIMS: 24  
 EXEMPLARY CLAIM: 1  
 LINE COUNT: 1259  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

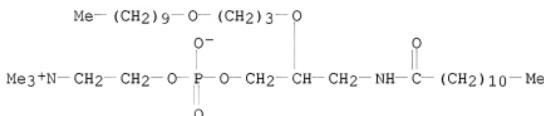
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

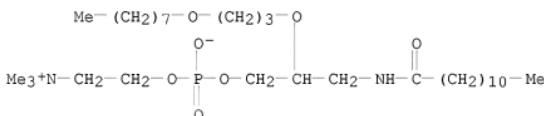
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



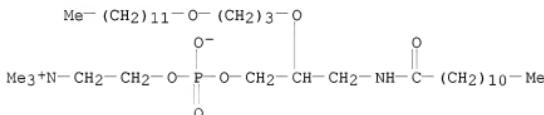
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



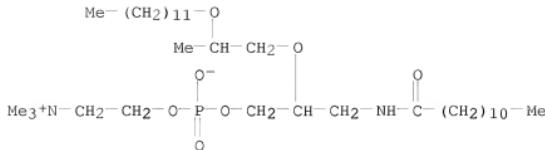
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 8 OF 12 USPATFULL on STN

ACCESSION NUMBER: 2005:215516 USPATFULL  
 TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses  
 INVENTOR(S): Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hes, Jan V., Hurdle Millis, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hall, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Kucera Pharmaceutical Company (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005187192	A1	20050825
APPLICATION INFO.:	US 2004-783927	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US		

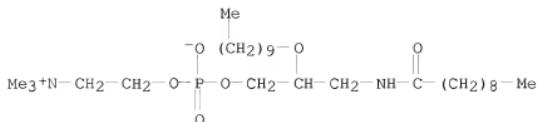
NUMBER OF CLAIMS: 65  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 2 Drawing Page(s)  
 LINE COUNT: 2757

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

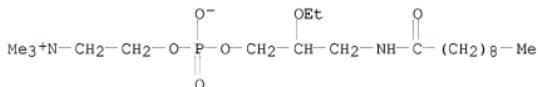
AB Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

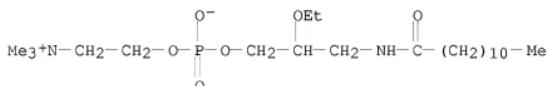
IT 252371-27-0 443882-90-4 443882-91-5  
 (phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)  
 RN 252371-27-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphanadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-90-4 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



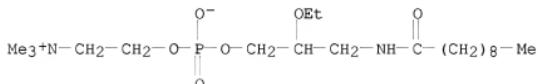
L6 ANSWER 9 OF 12 USPATFULL on STN  
 ACCESSION NUMBER: 2005:215515 USPATFULL  
 TITLE: Methods and compositions for the treatment of respiratory syncytial virus  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
                  Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
                  Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
                  Fleming, Ronald A., Cary, NC, UNITED STATES  
                  Hess, Jan V., Hurdle Mills, NC, UNITED STATES  
                  Huang, Yunsheng, Apex, NC, UNITED STATES  
                  Read, Russ H., Rural Hall, NC, UNITED STATES  
                  Furman, Phillip A., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005187191	A1	20050825
APPLICATION INFO.:	US 2004-781894	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	2105		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	The invention includes compounds useful for inhibiting RSV replication		

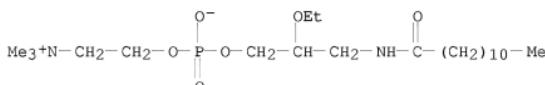
and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

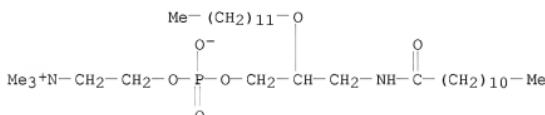
IT 443882-90-4, KPC 11 443882-91-5, KPC 15  
     (compns. for treatment of respiratory syncytial virus)  
 RN 443882-90-4 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



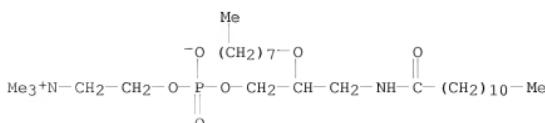
RN 443882-91-5 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



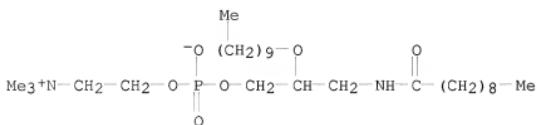
IT 207298-91-7 207298-93-9 252371-27-0  
     443882-96-0  
     (compns. for treatment of respiratory syncytial virus)  
 RN 207298-91-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



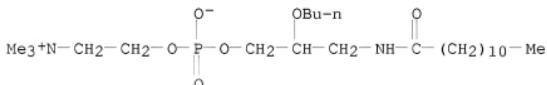
RN 207298-93-9 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 252371-27-0 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 10 OF 12 USPATFULL on STN  
ACCESSION NUMBER: 2005:93372 USPATFULL  
TITLE: Lipid analogs for treating viral infections  
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)  
University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005080050	A1	20050414
	US 7141557	B2	20061128
APPLICATION INFO.:	US 2004-943923	A1	20040920 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	960		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and <u>herpes virus</u> , is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

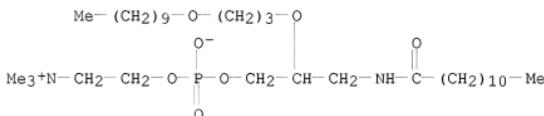
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

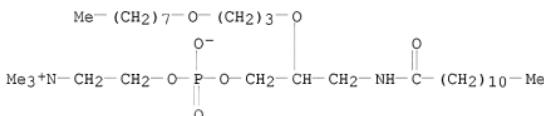
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



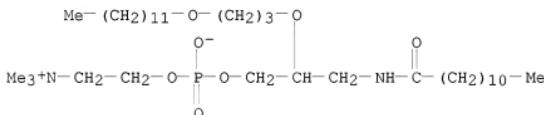
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



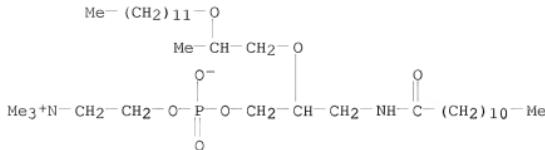
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



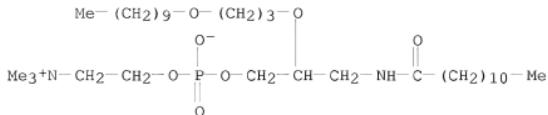
RN 178173-01-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

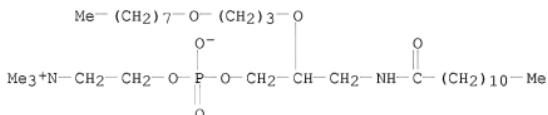


L6 ANSWER 11 OF 12 USPATFULL on STN  
 ACCESSION NUMBER: 2004:328020 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
                  Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
                  Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S.  
                  corporation)  
                  University of North Carolina at Chapel Hill, Chapel  
                  Hill, NC (U.S. corporation)

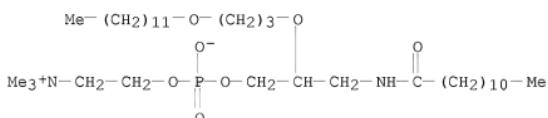
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004259845	A1	20041223 Compound claims
	<u>US 7135583</u>	B2	20061114
APPLICATION INFO.:	US 2004-889127	A1	20040713 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995, PENDING		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004		
NUMBER OF CLAIMS:	19		
EXEMPLARY CLAIM:	CLM-1-106		
LINE COUNT:	903		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
IT	178172-98-0 178172-99-1 178173-00-7 178173-01-8 (phospholipids for treating viral infections and tumors)		
RN	178172-98-0 USPATFULL		
CN	3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)		



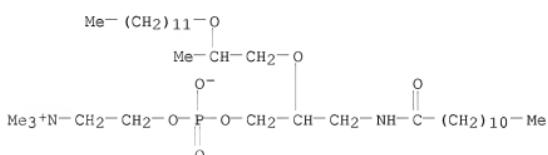
RN 178172-99-1 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L6 ANSWER 12 OF 12 USPATFULL on STN  
 ACCESSION NUMBER: 1999:121339 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States  
                  Morris-Natschke, Susan L., Apex, NC, United States

PATENT ASSIGNEE(S): Ishaq, Khalid S., Chapel Hill, NC, United States  
Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5962437		19991005
	WO 9606620		19960307
APPLICATION INFO.:	US 1997-793470		19970502 (8)
	WO 1995-US10111		19950807
			19970502 PCT 371 date
			19970502 PCT 102(e) date
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned.		

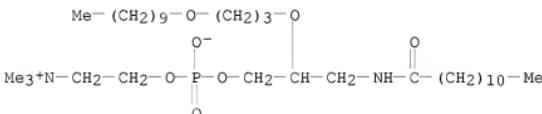
DOCUMENT TYPE:	abandonment
FILE SEGMENT:	Utility
PRIMARY EXAMINER:	Granted
ASSISTANT EXAMINER:	Raymond, Richard L.
LEGAL REPRESENTATIVE:	Coleman, Brenda
NUMBER OF CLAIMS:	Schwegman, Lundberg
EXEMPLARY CLAIM:	33
LINE COUNT:	1
	1159

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

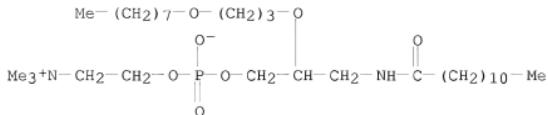
AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

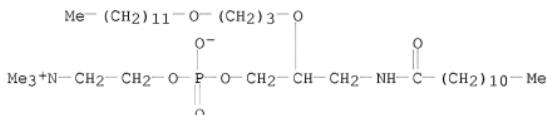
IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8  
(phospholipids for treating viral infections and tumors)  
RN 178172-98-0 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



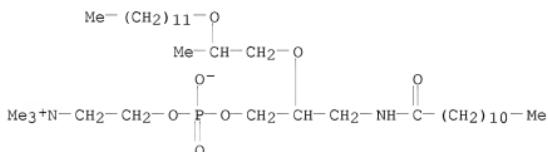
RN 178172-99-1 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX  
NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



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(FILE 'HOME' ENTERED AT 14:01:05 ON 22 FEB 2008)

FILE 'REGISTRY' ENTERED AT 14:01:16 ON 22 FEB 2008  
 L1 STRUCTURE uploaded  
 L2 70 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:01:45 ON 22 FEB 2008  
 L3 48 S L2  
 L4 23 S L3 AND ?VIRUS?  
 L5 127186 S L4 AND CORONAVIRUS OR HERPES OR TOGAVIRUS  
 L6 12 S L4 AND (CORONAVIRUS OR HERPES OR TOGAVIRUS)

=> d 14 1-23 ibib, abs, hitstr

L4 ANSWER 1 OF 23 MEDLINE on STN  
 ACCESSION NUMBER: 91202492 MEDLINE

DOCUMENT NUMBER: PubMed ID: 2016713  
TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents.  
AUTHOR: Meyer K L; Marasco C J Jr; Morris-Natschke S L; Ishaq K S; Piantadosi C  
CORPORATE SOURCE: University of North Carolina, School of Pharmacy, Division of Medicinal Chemistry and Natural Products, Chapel Hill 27599.  
CONTRACT NUMBER: CA 12197 (United States NCI)  
CA 42216 (United States NCI)  
RR 05404 (United States NCRR)  
SOURCE: Journal of medicinal chemistry, (1991 Apr) Vol. 34, No. 4, pp. 1377-83.  
Journal code: 9716531. ISSN: 0022-2623.  
PUB. COUNTRY: United States  
DOCUMENT TYPE: (COMPARATIVE STUDY)  
Journal; Article; (JOURNAL ARTICLE)  
(RESEARCH SUPPORT, NON-U.S. GOV'T)  
(RESEARCH SUPPORT, U.S. GOV'T, P.H.S.)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals; AIDS  
ENTRY MONTH: 199105  
ENTRY DATE: Entered STN: 7 Jun 1991  
Last Updated on STN: 3 Feb 1997  
Entered Medline: 21 May 1991

AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety was evaluated as potential anti-HIV-1 agents. Several analogues were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (8). Compound 8 exhibited an IC50 for the inhibition of plaque formation of 0.16 microm which was 84-fold lower than the IC50 value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compounds, unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism, they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

L4 ANSWER 2 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
ACCESSION NUMBER: 2006:198407 CAPLUS  
DOCUMENT NUMBER: 144:403777  
TITLE: Using small molecules to overcome drug resistance induced by a viral oncogene  
AUTHOR(S): Smukste, Inese; Bhalala, Oneil; Persico, Marco; Stockwell, Brent R.  
COPORATE SOURCE: Department of Biological Sciences and Department of Chemistry, Fairchild Center, Columbia University, New York, NY, 10027, USA  
SOURCE: Cancer Cell (2006), 9(2), 133-146  
CODEN: CCAECI; ISSN: 1535-6108  
PUBLISHER: Cell Press  
DOCUMENT TYPE: Journal  
LANGUAGE: English  
AB We used small mol. screening to discover compds. and mechanisms for overcoming E6 oncogene-mediated drug resistance. Using high-throughput screening in isogenic cell lines, we identified compds. that potentiate doxorubicin's lethality in E6-expressing colon cancer cells. Such compds. included quaternary ammonium salts, protein synthesis inhibitors, 11-deoxyprostaglandins, and two addnl. classes of compds.-analogs of

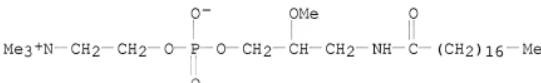
1,3-bis(4-morpholinylmethyl)-2-imidazolidinethione (a thiourea) and acylated secondary amines that we named indoxins. Indoxins upregulated topoisomerase II $\alpha$ , the target of doxorubicin, thereby increasing doxorubicin lethality. We developed a photolabeling strategy to identify targets of indoxin and discovered a nuclear actin-related protein complex as a candidate indoxin target.

IT 88876-07-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(small mols. which overcome drug resistance induced by a viral oncogene)

RN 88876-07-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium, 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



REFERENCE COUNT: 58 THERE ARE 58 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 20051904330 CAPLUS

DOCUMENT NUMBER: 143:222464

TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses

INVENTOR(S): Fleming, Ronald A.; Hes, Jan V.; Huang, Yunsheng; Read, Russ H.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Kucera, Louis S.; Furman, Phillip A.

PATENT ASSIGNEE(S): Kucera Pharmaceutical Company, USA

SOURCE: U.S. Pat. Appl. Publ., 36 pp.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005187192	A1	20050825	US 2004-783927	20040220
PRIORITY APPLN. INFO.:			US 2004-783927	20040220

OTHER SOURCE(S): MARPAT 143:222464

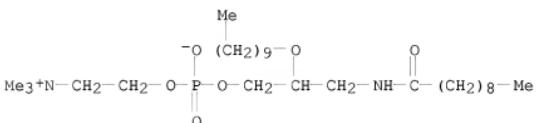
AB Provided are compds., methods and pharmaceutical compns. for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other antiviral agents. The EC50 of an alkylamido-2-alkoxypropylphosphocholine against varicella zoster virus was 0.48  $\mu\text{g}/\text{mL}$ .

IT 252371-27-0 443882-90-4 443882-91-5

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)

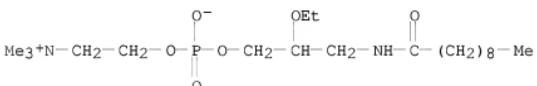
BN 252371-27-0 CAPIUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



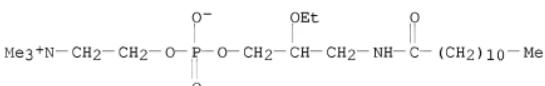
BN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



BN 443882-91-5 CARLIUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo- inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 4 OF 23 CARLUS COPYRIGHT 2008 ACS ON STN

L4 ANSWER 4 OF 23 CAFLUS COPYRIGHT 2008  
ACCESSION NUMBER: 2005-003611 CAFLUS

ACCESSION NUMBER: 2003:90261  
DOCUMENT NUMBER: 142-241630

DOCUMENT NUMBER: 143:241938  
TITLE: Methods and compositions for the treatment of  
meningitis caused by the mumps virus

INVENTOR(S): respiratory syncytial virus  
Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,  
Khalid S.; Fleming, Ronald A.; Hess, Jan V.; Huang,  
Yunsheng; Read, Russ H.; Furman, Phillip A.

PATENT ASSIGNEE(S) :

SOURCE: U.S. Pat. Appl. Publ., 29 PP.

CODEN: USXXCO

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY AGG., NUM., COUNT:

**PATENT INFORMATION:**

#### **APPENDIX INFORMATION**

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2005187191	A1	20050825	US 2004-781894	20040220

WO 2005099719	A2	20051027	WO 2005-US3972	20050209
WO 2005099719	A3	20070322		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CX, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GO, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: US 2004-781894 A 20040220

OTHER SOURCE(S): MARPAT 143:241938

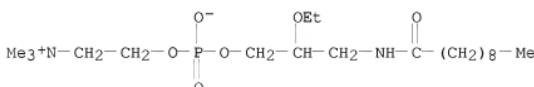
AB The invention includes compds. useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

IT 443882-90-4, KPC 11 443882-91-5, KPC 15

RL: ADV (Adverse effect, including toxicity); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compsns. for treatment of respiratory syncytial virus)

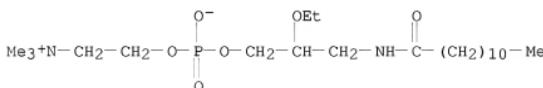
RN 443882-90-4 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



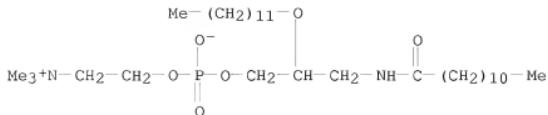
IT 207298-91-7 207298-93-9 252371-27-0

443882-96-0

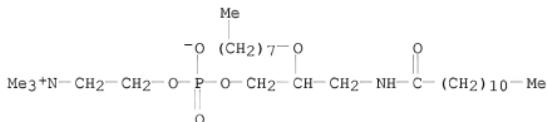
RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (compsns. for treatment of respiratory syncytial virus)

RN 207298-91-7 CAPLUS

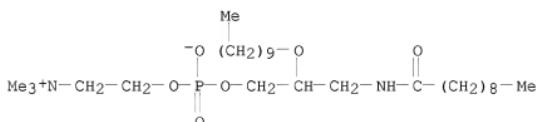
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



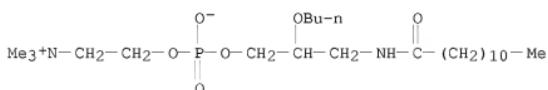
RN 207298-93-9 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 252371-27-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-96-0 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 5 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1998:435743 CAPLUS  
 DOCUMENT NUMBER: 129:90448  
 TITLE: Method of treating hepatitis virus infections  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.  
 PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina  
 SOURCE: U.S., 17 pp., Cont.-in-part of U. S. Ser. No. 74,943, abandoned.  
 CODEN: USXXAM

DOCUMENT TYPE:

Patent

LANGUAGE:

English

FAMILY ACC. NUM. COUNT:

2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5770584	A	19980623	US 1995-465947	19950606
US 6030960	A	20000229	US 1998-102308	19980622
PRIORITY APPLN. INFO.:			US 1993-74943	B2 19930610
			US 1995-465947	A3 19950606

OTHER SOURCE(S): MARPAT 129:90448

AB A method of treating hepatitis virus infection is disclosed.

The method involves administering to a human subject in need of such treatment an effective hepatitis virus-combating amount of an alkyl lipid or alkyl lipid derivative

IT 112989-01-2P 112989-02-3P 209532-02-5P

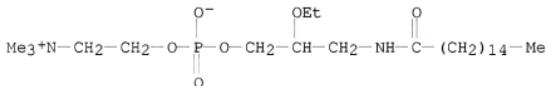
209532-03-6P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(alkyl lipids for treating hepatitis virus infections)

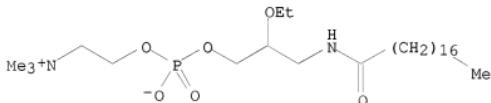
RN 112989-01-2 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 112989-02-3 CAPLUS

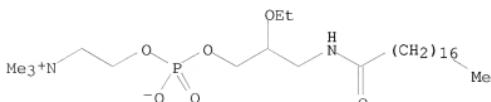
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 209532-02-5 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).

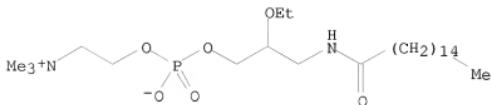


RN 209532-03-6 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-

trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).



REFERENCE COUNT: 67 THERE ARE 67 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 6 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1998:205430 CAPLUS

DOCUMENT NUMBER: 128:316940

TITLE: In vitro evaluation and characterization of newly designed alkylamidophospholipid analogs as anti-human immunodeficiency virus type 1 agents

AUTHOR(S): Kucera, L. S.; Iyer, N.; Morris-Natschke, S. L.; Chen, S. Y.; Gumus, F.; Ishaq, K.; Herrmann, D. B. J.

CORPORATE SOURCE: Wake Forest University School Medicine, Winston-Salem, NC, USA

SOURCE: Antiviral Chemistry & Chemotherapy (1998), 9(2), 157-165

PUBLISHER: CODEN: ACCHEH; ISSN: 0956-3202

DOCUMENT TYPE: International Medical Press

JOURNAL: Journal

LANGUAGE: English

AB Our labs. first reported two novel classes of complex synthetic lipids, including alkylamidophosphocholines (PC lipid; CP-51) and alkylamidophosphate ester-linked lipid-AZT conjugates (lipid-AZT conjugates; CP-92), with selective and potent activity against human immunodeficiency virus type 1 (HIV-1). To extend these observations, we synthesized addnl. PC lipids and lipid-AZT conjugates (INK and INK-AZT conjugate) to evaluate their structure-activity relationships by testing for selectivity against infectious wild-type (wt) and drug-resistant HIV-1 replication, virus fusogenic activity and toxicity for mouse bone marrow cells. PC lipid compds. with medium chain lengths at positions 1 and 2 gave an improved selective index (SI). INK-3, with 12 and 8 carbons and INK-15, with 10 and 12 carbons were among the most selective when evaluated in CEM-SS cells. INK-14, a lipid-AZT conjugate where AZT replaced the choline in PC lipid INK-3, gave the highest SI of >1250 against both infectious wt HIV-1 replication in CEM-SS cells and a clin. isolate in peripheral blood leukocytes. Notably, the PC lipid compds. INK-3 and INK-15, but not the lipid-AZT conjugate INK-14, were potent inhibitors of matched pairs of AZT-sensitive and AZT-resistant HIV-1 clin. isolates. INK-3 also inhibited replication of HIV-2 and TIBO-resistant HIV-1, and inhibited HIV-1-mediated fusogenic activity by 78, 41 and 9% in a dose-dependent manner. The TC50 for mouse bone marrow cells was >100 µg/mL for CP-51 and 0.142-0.259 µg/mL for AZT. These data suggest that optimum PC lipid compds. are significantly less toxic than AZT and have high potential as novel therapeutic agents for AIDS.

IT 207298-91-7P 207298-92-8P 207298-93-9P

207298-94-0P 207298-95-1P 207298-97-3P

207298-99-5P

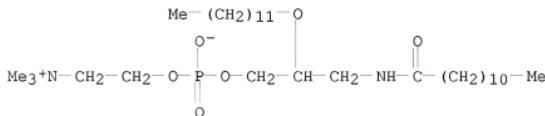
RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study);

## PREP (Preparation); USES (Uses)

(anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)

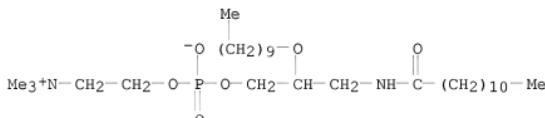
RN 207298-91-7 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



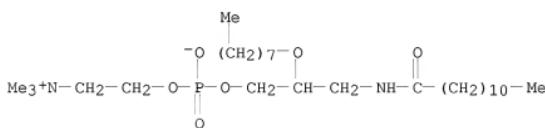
RN 207298-92-8 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



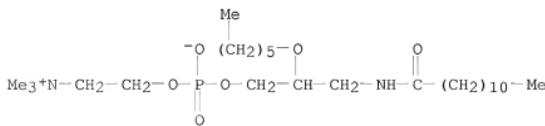
RN 207298-93-9 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



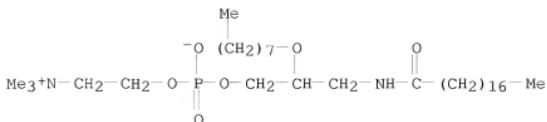
RN 207298-94-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(hexyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

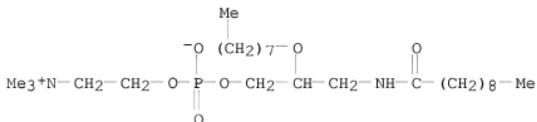


RN 207298-95-1 CAPLUS

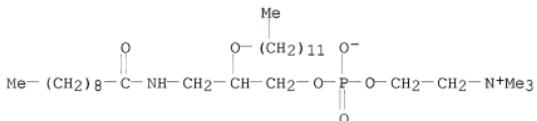
CN 3,5-Dioxa-9-aza-4-phosphaheptacosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



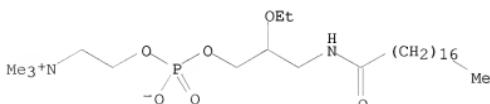
RN 207298-97-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 207298-99-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



IT 112989-02-3, CP 51  
 RL: ADV (Adverse effect, including toxicity); BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
 (anti-HIV-1 activity and preparation of alkylamidophospholipid analogs)  
 RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



REFERENCE COUNT: 19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 7 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1996:388263 CAPLUS  
 DOCUMENT NUMBER: 125:49273

TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.; Ishaq,  
 Khalid S.  
 PATENT ASSIGNEE(S): Wake Forest University, USA; Univ. of North Carolina  
 at Chapel Hill  
 SOURCE: PCT Int. Appl., 53 pp.  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9606620	A2	19960307	WO 1995-US10111	19950807
WO 9606620	A3	19960613		
W: AM, AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IS, JP, KE, KG, KP, KR, KZ, LK, LR, LT, LU, LV, MD, MG, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TT				
RW: KE, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2197319	A1	19960307	CA 1995-2197319	19950807
AU 9532166	A	19960322	AU 1995-32166	19950807
EP 781138	A2	19970702	EP 1995-928365	19950807
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
JP 10506619	T	19980630	JP 1995-508773	19950807
EP 1852121	A2	20071107	EP 2007-16369	19950807
EP 1852121	A3	20071121		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
US 5962437	A	19991005	US 1997-793470	19970502
US 7129227	B1	20061031	US 1999-412539	19991004
US 2004259845	A1	20041223	US 2004-889127	20040713
US 7135584	B2	20061114		
US 2005080050	A1	20050414	US 2004-943923	20040920
US 7141557	B2	20061128		
JP 2007056033	A	20070308	JP 2006-278049	20061011
US 2007099870	A1	20070503	US 2006-588313	20061027
US 7294621	B2	20071113		
US 2007105811	A1	20070510	US 2006-588308	20061027
US 7294619	B2	20071113		
US 2007105812	A1	20070510	US 2006-588311	20061027
US 7294620	B2	20071113		
PRIORITY APPLN. INFO.:				
		US 1994-297416	A 19940829	
		US 1994-314901	A 19940929	
		EP 1995-928365	A3 19950807	
		JP 1996-508773	A3 19950807	
		WO 1995-US10111	W 19950807	
		US 1997-793470	A3 19970502	
		US 1999-412539	B1 19991004	
		US 2004-889127	A3 20040713	
		US 2004-943923	A3 20040920	

OTHER SOURCE(S): MARPAT 125:49273

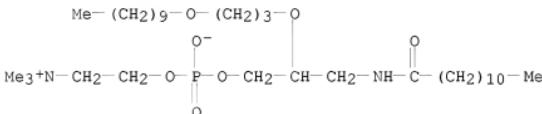
AB A method of treating viral infections, in particular with HIV-1, hepatitis B virus, and herpes viruses, is disclosed. The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative. For example, 1-dodecanamido-2-decyldpropyl-3-phosphocholine showed IC50 value of 0.14  $\mu$ M against HIV-1 syncytial plaque formation.  
 IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(phospholipids for treating viral infections and tumors)

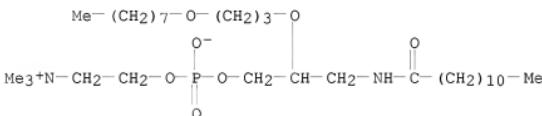
BN 178172-98-0 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



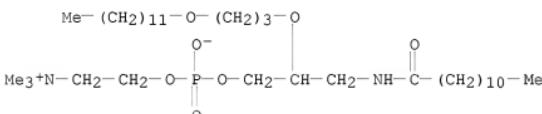
BN 178172-99-1 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



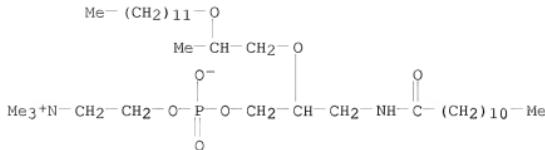
BN 178173-00-7 CAPI-JJS

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



BN 178173-01-8 CARLIUS

RN 18173-51-8 CARLOS  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX N24M1)



L4 ANSWER 8 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:701769 CAPLUS

DOCUMENT NUMBER: 123:112632

TITLE: Phospholipids for combating hepatitis B virus infection

INVENTOR(S): Kucera, Louis S.; Morris-Natschke, Susan L.

PATENT ASSIGNEE(S): Wake Forest University, USA; University of North Carolina

SOURCE: PCT Int. Appl., 38 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

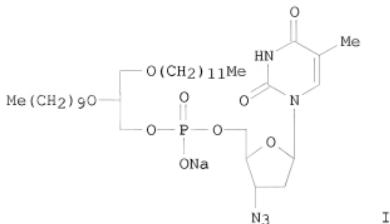
FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9428908	A2	19941222	WO 1994-US5855	19940525
WO 9428908	A3	19950323		
W: AT, AU, BB, BG, BR, BY, CA, CH, CN, CZ, DE, DK, ES, FI, GB, GE, HU, JP, KG, KP, KR, KZ, LU, LV, MD, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SI, SK, TJ, TT, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
CA 2164717	A1	19941222	CA 1994-2164717	19940525
AU 9470448	A	19950103	AU 1994-70448	19940525
EP 702556	A1	19960327	EP 1994-919231	19940525
EP 702556	B1	20021023		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, NL, PT, SE				
AT 226437	T	20021115	AT 1994-919231	19940525
PRIORITY APPLN. INFO.:			US 1993-74943	A 19930610
			WO 1994-US5855	W 19940525

OTHER SOURCE(S): MARPAT 123:112632

GI



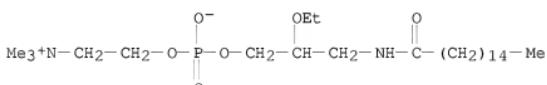
**AB** A method of treating infection with hepatitis B virus is disclosed. The method comprises administration of alkyl ether phospholipids and derivs. of formula DCH<sub>2</sub>XCH<sub>2</sub>YR<sub>1</sub> [Y = S, O, NH, NMe, NHCO, NMeCO; R<sub>1</sub> = (un)branched (un)saturated C<sub>10</sub>-20 alk(en/yn)yl; X = bond, CH<sub>2</sub> (un)substituted by OH, alkyl, alkoxy, or alkylthio; D = (PO<sub>4</sub>)<sub>n</sub>, N+R<sub>5</sub>R<sub>6</sub>F<sup>W</sup> Z<sup>-</sup>; E = (mono/di/trialkyl)ammonioalkyl or a nucleic acid base conjugate; F = alkylene; R<sub>5</sub>, R<sub>6</sub> = H, alkyl; W = OH, SH; Z<sup>-</sup> = anion]. Several compds. were prepared. For example, etherification of isopropylideneglycerol with 1-bromododecane using KOH in PhMe and acid hydrolysis with HCl in MeOH-Et<sub>2</sub>O mixture gave 71% 3-dodecyloxy-1,2-propanediol. This underwent 1-O-tritylation with Ph<sub>3</sub>CCl in pyridine, 2-O-alkylation by 1-bromododecane and NaH in THF (51%), and de tritylation by p-MeC<sub>6</sub>H<sub>4</sub>SO<sub>3</sub>H in CHCl<sub>3</sub>-MeOH (63%) to give 3-dodecyloxy-2-decyloxy-1-propanol. The latter underwent esterification with (PhO)<sub>2</sub>P(O)Cl (60%), hydrogenolysis of the Ph ester to the phosphatidic acid, and reesterification with AZT using DCC (22%) to give title compound (Na salt) I. Another compound, ( $\pm$ )-3-octadecanamido-2-ethoxypropyl-1-phosphocholine, inhibited HBV virion DNA and intracellular RI HBV DNA in expts. to a comparable or greater extent than the standard agent ddC.

**IT** 112989-01-2P 112989-02-3P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses) (preparation of phospholipids for combating hepatitis B virus)

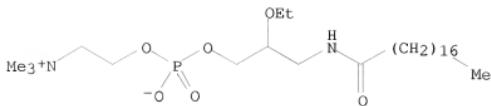
**RN** 112989-01-2 CAPLUS

**CN** 3,5-Dioxa-9-aza-4-phosphaphentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



**RN** 112989-02-3 CAPLUS

**CN** 3,5-Dioxa-9-aza-4-phosphaphentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 9 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1995:694404 CAPLUS

DOCUMENT NUMBER: 123:160151

TITLE: Membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody

AUTHOR(S): Krugner-Higby, Lisa; Goff, David; Edwards, Terri; Iyer, Nathan; Neufeld, Jay; Kute, Timothy; Morris-Natschke, Susan; Ishaq, Khalid; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Wake Forest University, Winston-Salem, NC, 27157-1064, USA

SOURCE: AIDS Research and Human Retroviruses (1995), 11(6), 705-12

CODEN: ARHRE7; ISSN: 0889-2229

PUBLISHER: Liebert

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Membrane-interactive phospholipids (PLs), previously evaluated for activity against HIV-1 in vitro, are known to affect late steps in viral replication. Studies were done to determine the effects of PL analogs on post-translational processing of HIV-1 proteins, binding of viral surface gp160/gp120 to CD4 receptor, and HIV-1-induced cell fusion. Results of this investigation indicated that PL alone (1-octadecanamido-2-ethoxypropyl-rac-3-phosphocholine, CP-51) and PL-AZT conjugate (1-octadecanamido-2-ethoxypropyl-rac-3-phospho-3'-azido-3'-deoxythymidine, CP-92) have no effect on HIV-1-induced syntheses or processing of gp160/gp120, p51, p24, or p17 (including myristylation) in infected cells. Progeny HIV-1 particles made in CP-92-treated H9IIIB cells contained gp120, p51, and p24; however, these virus particles had reduced capacity to bind to CD4+ cells. Both CP-51 and CP-92 inhibited syncytium (cell fusion) formation between treated HIV-1-infected cells and uninfected CD4+ cells, and, they reduced HIV-1 gp160/gp120 binding to CD4+ cells and monoclonal antibody. These results suggest that anti-HIV-1 activity of PL compds. involves alteration of cell surface membranes and viral envelopes. Phospholipid compds. are a novel class of membrane interactive compds. with potential use in blocking the spread of HIV-1 infection and pathogenesis in AIDS.

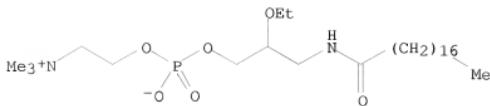
IT 112989-02-3, CP 51

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

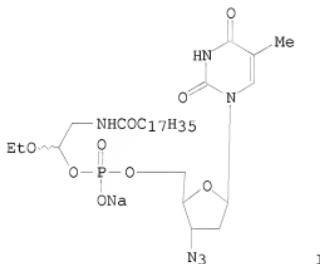
(membrane-interactive phospholipids inhibit HIV type 1-induced cell fusion and surface gp160/ gp120 binding to monoclonal antibody)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 10 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN  
 ACCESSION NUMBER: 1991:185901 CAPLUS  
 DOCUMENT NUMBER: 114:185901  
 TITLE: Synthesis and evaluation of novel ether lipid nucleoside conjugates for anti-HIV-1 activity  
 Piantadosi, Claude; Marasco, Canio J., Jr.; Morris-Natschke, Susan L.; Meyer, Karen L.; Gumus, Fatma; Surles, Jefferson R.; Ishaq, Khalid S.; Kucera, Louis S.; Iyer, Nathan; et al.  
 CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA  
 SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1408-14  
 DOCUMENT TYPE: CODEN: JMCMAR; ISSN: 0022-2623  
 LANGUAGE: Journal  
 English  
 OTHER SOURCE(S): CASREACT 114:185901  
 GI



AB Combinations of an amidoalkylphosphocholine, C17H35CONHCH2CH(OEt)CH2OP(O)(O-)OCH2CH2N+Me3, and AZT were found to cause an apparent synergistic action in suppressing infectious HIV-1 replication. In addition, alkylamido, alkyloxy, and alkylthio ether lipids were chemical linked to anti-HIV-1 nucleosides (AZT and DDI) through phosphate and phosphonate linkages. These conjugates show promising in vitro anti-HIV-1 activity. Also, the conjugates have a 5-10-fold reduction in cell cytotoxicity compared to AZT alone. The most active compound, an alkylamido ether lipid-AZT conjugate, I was found to have a differential selectivity of 1793 in a syncytial plaque assay. In comparison, AZT alone has a value of 1281.

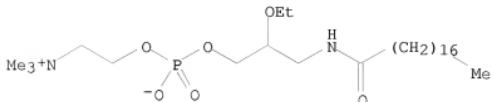
IT 112989-02-3

RL: RCT (Reactant); RACT (Reactant or reagent)  
 (anti-HIV-1 activity of)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphahaheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-

trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 11 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1991:185881 CAPLUS

DOCUMENT NUMBER: 114:185881

TITLE: In vitro evaluation of phosphocholine and quaternary ammonium containing lipids as novel anti-HIV agents

AUTHOR(S): Meyer, Karen L.; Marasco, Canino J., Jr.; Morris-Natschke, Susan L.; Ishaq, Khalid S.; Piantadosi, Claude; Kucera, Louis S.

CORPORATE SOURCE: Sch. Pharm., Univ. North Carolina, Chapel Hill, NC, 27599, USA

SOURCE: Journal of Medicinal Chemistry (1991), 34(4), 1377-83

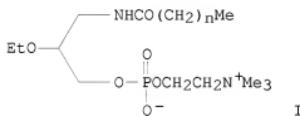
DOCUMENT TYPE: CODEN: JMCMAR; ISSN: 0022-2623

LANGUAGE: Journal

OTHER SOURCE(S): English

CASREACT 114:185881

GI



AB A series of synthetic lipids containing a two- or three-carbon backbone substituted with a thio, oxy, or amidoalkyl functionality and either a phosphocholine or quaternary ammonium moiety were evaluated as potential anti-HIV-1 agents. Several analogs were identified as possessing activity with the most promising compound being rac-3-octadecanamido-2-ethoxypropylphosphocholine (I). I exhibited an IC<sub>50</sub> for the inhibition of plaque formation of 0.16 μM which was 84-fold lower than the IC<sub>50</sub> value determined for CEM-SS cell growth inhibition. Initial mechanistic studies have indicated that these compds., unlike AZT, are not reverse transcriptase (RT) inhibitors, but instead appear to inhibit a late step in HIV replication involving virus assembly and infectious virus production. Since these lipids are acting via a different mechanism they represent an alternative approach to the chemotherapeutic treatment of AIDS as well as candidates for combination therapy with AZT.

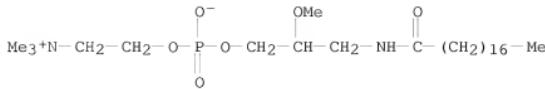
IT 88876-07-7 112989-00-1 112989-01-2

112989-02-3

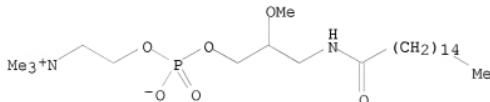
RL: RCT (Reactant); RACT (Reactant or reagent)  
(anti-HIV-1 activity of)

RN 88876-07-7 CAPLUS

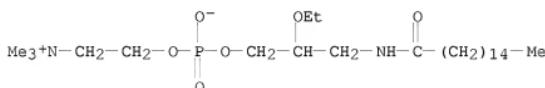
CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium, 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (CA INDEX NAME)



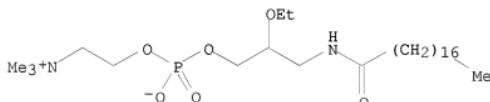
RN 112989-00-1 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium, 4-hydroxy-7-methoxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



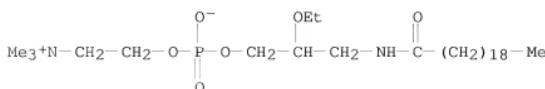
RN 112989-01-2 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphpentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 112989-02-3 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



IT 149576-20-5P  
 RL: SPN (Synthetic preparation); PREP (Preparation)  
 (preparation and anti-HIV-1 activity of)  
 RN 149576-20-5 CAPLUS  
 CN 3,5-Dioxa-9-aza-4-phosphanonacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 12 OF 23 CAPLUS COPYRIGHT 2008 ACS on STN

ACCESSION NUMBER: 1990:470710 CAPLUS

DOCUMENT NUMBER: 113:70710

TITLE: Novel membrane-interactive ether lipid analogs that inhibit infectious HIV-1 production and induce defective virus formation

AUTHOR(S): Kucera, Louis S.; Iyer, Nathan; Leake, Eva; Raben, Adam; Modest, Edward J.; Daniel, Larry W.; Piantadosi, Claude

CORPORATE SOURCE: Bowman Gray Sch. Med., Wake Forest Univ., Winston-Salem, NC, 27103, USA

SOURCE: AIDS Research and Human Retroviruses (1990), 6(4), 491-501

DOCUMENT TYPE: CODEN: ARHRE7; ISSN: 0889-2229  
Journal  
LANGUAGE: English

AB A new class of membrane-active ether lipid (EL) analogs of platelet-activating factor were studied for in vitro anti-HIV-1 activity. Human T-cell (CEM-ss) monolayers or suspension cultures were used to determine effects of structural modifications of Type A phosphorus-containing and Type B nonphosphorus EL analogs on (a) the inhibitory concn.50 (IC50) for HIV-1 syncytial plaque formation and cell growth, and, (b) virus budding at the cell plasma membrane. Results indicate that representative Type A and Type B EL inhibit HIV-1 but not herpes simplex virus type 2 plaque formation when added before or up to 2 days after viral infection. Anti-HIV-1 activity does not involve direct inactivation of virus infectivity. Type A EL (IC50 range = 0.2-1.4  $\mu$ M) with alkoxy, alkylthio, or alkylamido substitution at glycerol position 1 and ethoxy or methoxy substitution at position 2, and Type B compds. (IC50 range = 0.33-0.63  $\mu$ M) with an inverse choline or nitrogen heterocyclic substitution at position 3 have selective activity against HIV-1-infected T-cells. EL treatment of HIV-1-infected cells is associated with subsequent release of reverse transcriptase activity, but infectious virus production is inhibited with time after infection. Electron microscopic examination of HIV-1-infected and EL-treated cells revealed absence of detectable budding virus at the plasma membrane but presence of intracytoplasmic vacuolar virus particles. EL analogs are a novel class of agents that induce defective intracytoplasmic vacuolar HIV-1 formation in T-cells. Being membrane interactive, EL are ideally suited for combination chemotherapy with DNA-interactive anti-HIV nucleoside analogs.

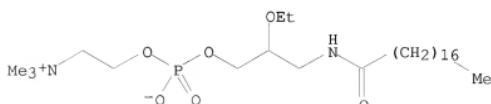
IT 112989-02-3

RL: BIOL (Biological study)

(human immunodeficiency virus infection response to)

RN 112989-02-3 CAPLUS

CN 3,5-Dioxa-9-aza-4-phosphoheptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 13 OF 23 USPATFULL on STN

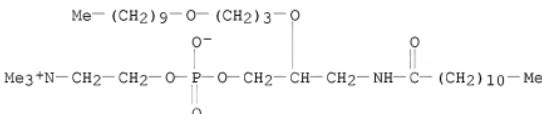
ACCESSION NUMBER: 2007:121606 USPATFULL

TITLE: Lipid analogs for inhibiting HIV-1 activity

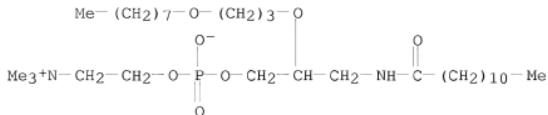
INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007105812	A1	20070510
	US 7294620	B2	20071113
APPLICATION INFO.:	US 2006-588311	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	18		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	898		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			

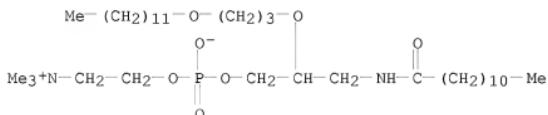
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8  
(phospholipids for treating viral infections and tumors)  
RN 178172-98-0 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



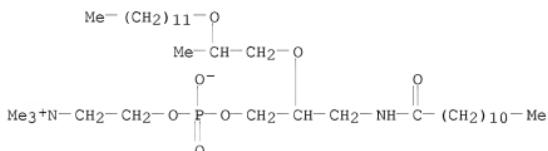
RN 178172-99-1 USPAFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX  
NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 14 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2007121605 USPATFULL  
 TITLE: Lipid analogs for inhibiting the activity of hepatitis B antigen  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
                  Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
                  Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)  
                  University of North Carolina at Chapel Hill (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007105811	A1	20070510
	US 7294619	B2	20071113
APPLICATION INFO.:	US 2006-588308	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-889127, filed on 13 Jul 2004, GRANTED, Pat. No. US 7135584 Division of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed		

on 2 May 1997, GRANTED, Pat. No. US 5962437  
Continuation of Ser. No. US 1994-314901, filed on 29  
Sep 1994, ABANDONED Continuation-in-part of Ser. No. US  
1994-297416, filed on 29 Aug 1994, ABANDONED

DOCUMENT TYPE: Utility  
FILE SEGMENT: APPLICATION  
LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE  
NW, WASHINGTON, DC, 20004, US  
NUMBER OF CLAIMS: 20  
EXEMPLARY CLAIM: 1-106  
LINE COUNT: 899

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

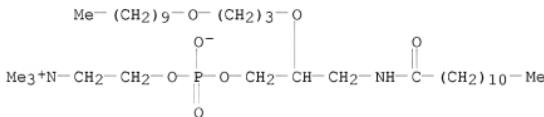
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

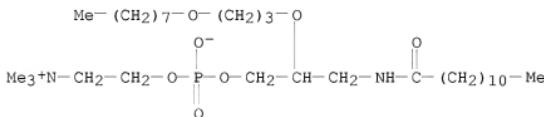
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



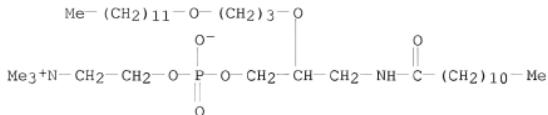
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

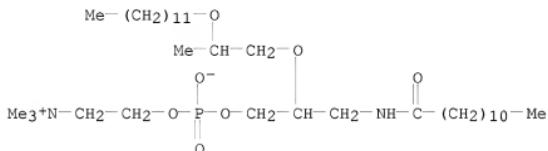


RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 15 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2007:114796 USPATFULL  
 TITLE: Lipid analogs for combating tumors  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
                  Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
                  Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2007099870	A1	20070503
	US 7294621	B2	20071113
APPLICATION INFO.:	US 2006-588313	A1	20061027 (11)
RELATED APPLN. INFO.:	Division of Ser. No. US 2004-943923, filed on 20 Sep 2004, GRANTED, Pat. No. US 7141557 Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, GRANTED, Pat. No. US 7129227 Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		

DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US

NUMBER OF CLAIMS: 19  
 EXEMPLARY CLAIM: 1-106

LINE COUNT: 900

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB The invention relates to methods of treating viral infections, and in particular hepatitis B virus. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative to inhibit the activity of the viral infection.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

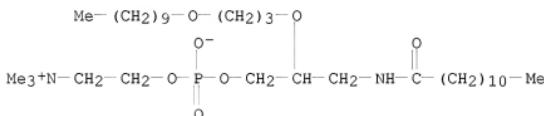
IT 178172-98-0 178172-99-1 178173-00-7

178173-01-8

(phospholipids for treating viral infections and tumors)

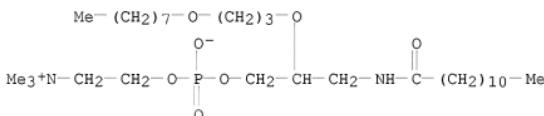
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



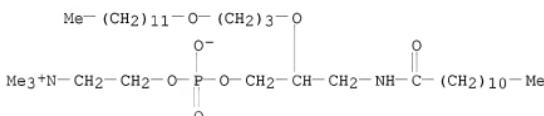
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



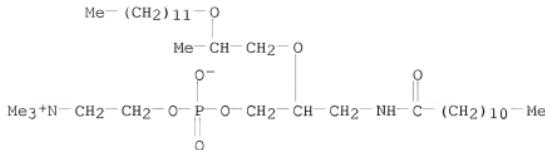
RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

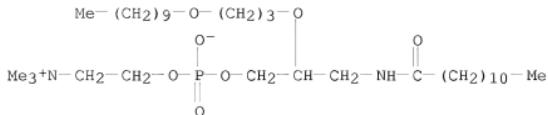


L4 ANSWER 16 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2006:284487 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston Salem, NC, UNITED  
 STATES (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel  
 Hill, NC, UNITED STATES (U.S. corporation)

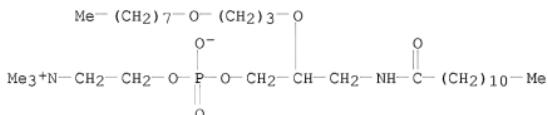
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 7129227	B1	20061031
APPLICATION INFO.:	US 1999-412539		19991004 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 2003-793470, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995 Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, ABANDONED Continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, ABANDONED		

DOCUMENT TYPE:	Utility
FILE SEGMENT:	GRANTED
PRIMARY EXAMINER:	Coleman, Brenda
LEGAL REPRESENTATIVE:	Morgan Lewis & Bockius LLP
NUMBER OF CLAIMS:	24
EXEMPLARY CLAIM:	1
LINE COUNT:	1259
CAS INDEXING IS AVAILABLE FOR THIS PATENT.	
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpesviruses, is disclosed. The method comprises administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

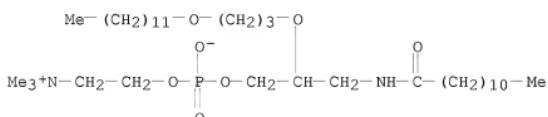
CAS INDEXING IS AVAILABLE FOR THIS PATENT.	
IT	178172-98-0 178172-99-1 178173-00-7 178173-01-8 (phospholipids for treating viral infections and tumors)
RN	178172-98-0 USPATFULL
CN	3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



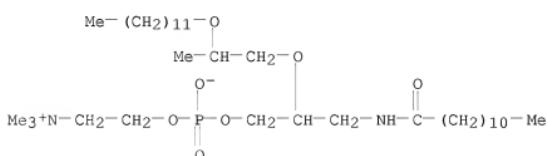
RN 178172-99-1 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 17 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2005:215516 USPATFULL  
 TITLE: Phospholipids for the treatment of infection by togaviruses, herpes viruses and coronaviruses

## INVENTOR(S) :

Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hes, Jan V., Hurdle Mills, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hall, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES  
 Kucera Pharmaceutical Company (U.S. corporation)

## PATENT ASSIGNEE(S) :

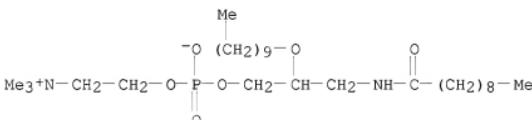
	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005187192	A1	20050825
APPLICATION INFO.:	US 2004-783927	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	Madeline I. Johnston, Esq., KING & SPALDING LLP, 45th Floor, 191 Peachtree Street, N.E., Atlanta, GA, 30303, US		
NUMBER OF CLAIMS:	65		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	2 Drawing Page(s)		
LINE COUNT:	2757		

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

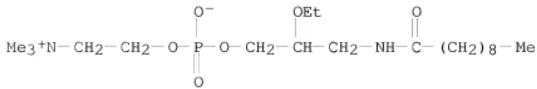
AB Provided are compounds, methods and pharmaceutical compositions for treating a host, especially a human, infected with a togavirus, herpes virus and/or coronavirus, and in particular SARS-CoV, cytomegalovirus or varicella-zoster virus. The method in one embodiment comprises administering to that host an effective amount of an anti-togavirus, anti-herpes virus and/or anti-coronavirus phospholipid or a pharmaceutically acceptable salt or prodrug thereof. The phospholipid compound is, e.g., a 3-alkylamido-2-alkoxypropylphosphocholine compound or salt thereof. The compound may be administered alone or in combination and/or alternation with one or more other anti-viral agents.

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

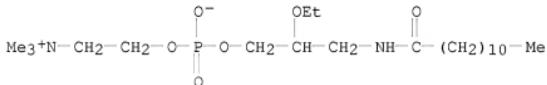
IT 252371-27-0 443882-90-4 443882-91-5  
 (phospholipids for treatment of infection by togaviruses, herpes viruses and coronaviruses)  
 RN 252371-27-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-90-4 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphanonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-91-5 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 18 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2005:215515 USPATFULL  
 TITLE: Methods and compositions for the treatment of respiratory syncytial virus  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 Fleming, Ronald A., Cary, NC, UNITED STATES  
 Hess, Jan V., Hurdle Mills, NC, UNITED STATES  
 Huang, Yunsheng, Apex, NC, UNITED STATES  
 Read, Russ H., Rural Hall, NC, UNITED STATES  
 Furman, Phillip A., Durham, NC, UNITED STATES

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005187191	A1	20050825
APPLICATION INFO.:	US 2004-781894	A1	20040220 (10)
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	39		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Page(s)		
LINE COUNT:	2105		

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

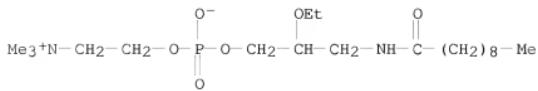
AB The invention includes compounds useful for inhibiting RSV replication and treating a host infected with RSV. The invention also includes methods of treating a host infected with RSV by administering to the host an anti-RSV effective amount of a compound of the invention.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

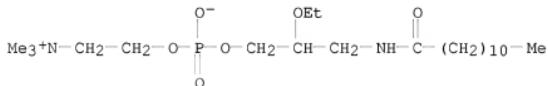
IT 443882-90-4, KPC 11 443882-91-5, KPC 15  
 (comps. for treatment of respiratory syncytial virus)

RN 443882-90-4 USPATFULL

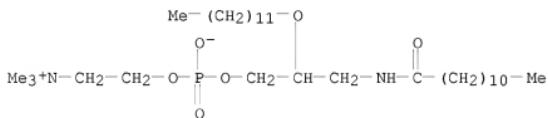
CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



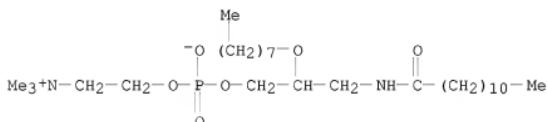
RN 443882-91-5 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-ethoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



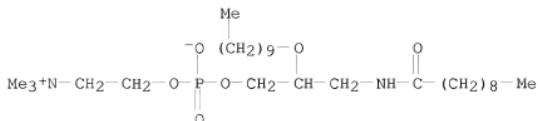
IT 207298-91-7 207298-93-9 252371-27-0  
 443882-96-0  
 (comps. for treatment of respiratory syncytial virus)  
 RN 207298-91-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-(dodecyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 207298-93-9 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-(octyloxy)-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

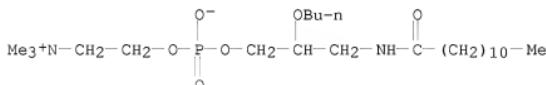


RN 252371-27-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphonadecan-1-aminium, 7-(decyloxy)-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 443882-96-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-butoxy-4-hydroxy-N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 19 OF 23 USPATFULL on STN

ACCESSION NUMBER: 2005:93372 USPATFULL

TITLE: Lipid analogs for treating viral infections

INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES

Morris-Natschke, Susan L., Apex, NC, UNITED STATES

Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES

PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, UNITED STATES (U.S. corporation)

University of North Carolina at Chapel Hill, Chapel Hill, NC, UNITED STATES (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2005080050	A1	20050414
	US 7141557	B2	20061128
APPLICATION INFO.:	US 2004-943923	A1	20040920 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, PENDING Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	APPLICATION		
LEGAL REPRESENTATIVE:	MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004, US		
NUMBER OF CLAIMS:	34		
EXEMPLARY CLAIM:	1-106		
LINE COUNT:	960		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed. The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.		

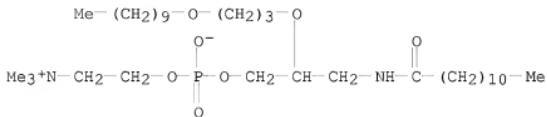
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7

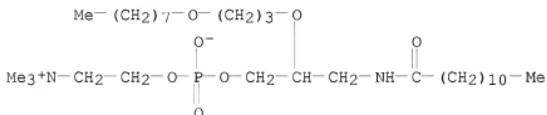
178173-01-8

(phospholipids for treating viral infections and tumors)

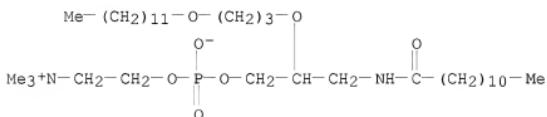
RN 178172-98-0 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



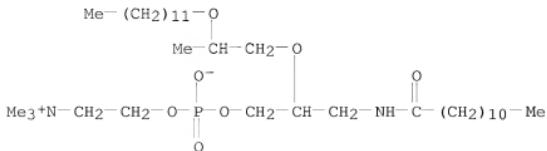
RN 178172-99-1 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 20 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2004:328020 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, UNITED STATES  
 Morris-Natschke, Susan L., Apex, NC, UNITED STATES  
 Ishaq, Khalid S., Chapel Hill, NC, UNITED STATES  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC (U.S.  
 corporation)  
 University of North Carolina at Chapel Hill, Chapel  
 Hill, NC (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 2004259845	A1	20041223
	US 7135584	B2	20061114
APPLICATION INFO.:	US 2004-889127	A1	20040713 (10)
RELATED APPLN. INFO.:	Continuation of Ser. No. US 1999-412539, filed on 4 Oct 1999, ABANDONED Division of Ser. No. US 1997-793470, filed on 2 May 1997, GRANTED, Pat. No. US 5962437 A 371 of International Ser. No. WO 1995-US10111, filed on 7 Aug 1995, PENDING		

DOCUMENT TYPE: Utility  
 FILE SEGMENT: APPLICATION  
 LEGAL REPRESENTATIVE: MORGAN LEWIS & BOCKIUS LLP, 1111 PENNSYLVANIA AVENUE NW, WASHINGTON, DC, 20004

NUMBER OF CLAIMS: 19

EXEMPLARY CLAIM: CLM-1-106

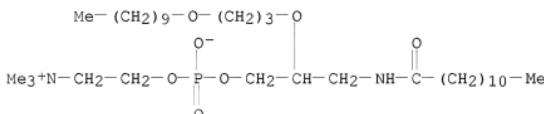
LINE COUNT: 903

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

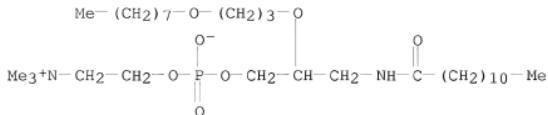
AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus, and herpes virus, is disclosed.  
 The method comprises administering to a subject in need of such treatment an infection-controlling amount of a phospholipid or phospholipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

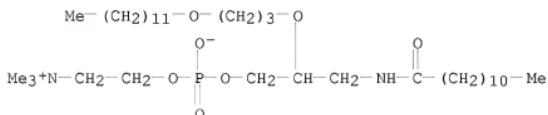
IT 178172-98-0 178172-99-1 178173-00-7  
 178173-01-8  
 (phospholipids for treating viral infections and tumors)  
 RN 178172-98-0 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



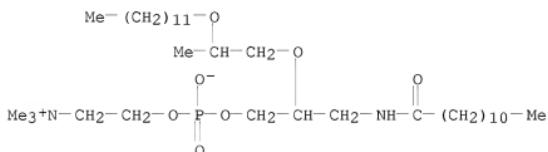
RN 178172-99-1 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-00-7 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



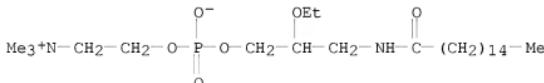
L4 ANSWER 21 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 2000:24634 USPATFULL  
 TITLE: Method of treating hepatitis virus infections  
 INVENTOR(S): Morris-Natschke, Susan L., Apex, NC, United States  
 Kucera, Louis S., Pfafftown, NC, United States  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
 University of North Carolina at Chapel Hill, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 6030960		20000229
APPLICATION INFO.:	US 1998-102308		19980622 (9)
RELATED APPLN. INFO.:	Division of Ser. No. US 1995-465947, filed on 6 Jun 1995, now patented, Pat. No. US 5770584 which is a continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		

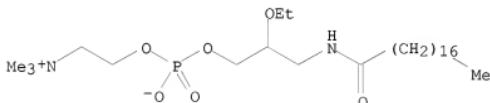
PRIMARY EXAMINER: Wilson, James O.  
 LEGAL REPRESENTATIVE: Akin, Gump, Strauss, Hauer & Feld, L.L.P.  
 NUMBER OF CLAIMS: 44  
 EXEMPLARY CLAIM: 1  
 NUMBER OF DRAWINGS: 1 Drawing Figure(s); 1 Drawing Page(s)  
 LINE COUNT: 1631  
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 AB A method of treating hepatitis virus infection is disclosed.  
 The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 112989-01-2P 112989-02-3P  
 (preparation of phospholipids for combating hepatitis B virus)  
 RN 112989-01-2 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 112989-02-3 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphahaptacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



L4 ANSWER 22 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 1999:121339 USPATFULL  
 TITLE: Lipid analogs for treating viral infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States  
 Morris-Natschke, Susan L., Apex, NC, United States  
 Ishaq, Khalid S., Chapel Hill, NC, United States  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5962437		19991005
	WO 9606620		19960307
APPLICATION INFO.:	US 1997-793470		19970502 (8)
	WO 1995-US10111		19950807
			19970502 PCT 371 date
RELATED APPLN. INFO.:			19970502 PCT 102(e) date
	Continuation of Ser. No. US 1994-314901, filed on 29 Sep 1994, now abandoned which is a continuation-in-part of Ser. No. US 1994-297416, filed on 29 Aug 1994, now abandoned		

DOCUMENT TYPE: Utility  
FILE SEGMENT: Granted  
PRIMARY EXAMINER: Raymond, Richard L.  
ASSISTANT EXAMINER: Coleman, Brenda  
LEGAL REPRESENTATIVE: Schwegman, Lundberg, Woessner & Kluth, P.A.  
NUMBER OF CLAIMS: 33  
EXEMPLARY CLAIM: 1  
LINE COUNT: 1159

## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AB A method of treating viral infections, and in particular HIV-1, hepatitis B virus and herpes viruses, is disclosed.  
The method comprising administering to a subject in need of such treatment an infection-combating amount of a phospholipid or phospholipid derivative.

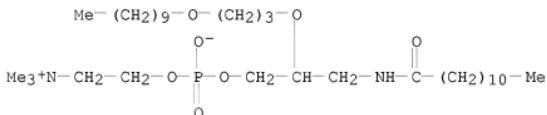
## CAS INDEXING IS AVAILABLE FOR THIS PATENT.

IT 178172-98-0 178172-99-1 178173-00-7  
178173-01-8

(phospholipids for treating viral infections and tumors)

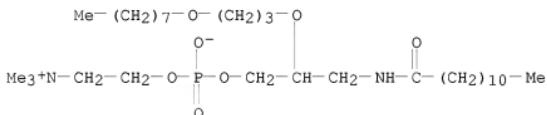
RN 178172-98-0 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(decyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



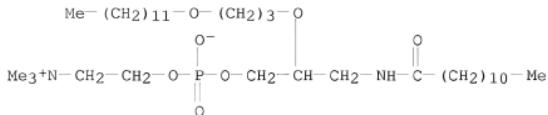
RN 178172-99-1 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 4-hydroxy-N,N,N-trimethyl-7-[3-(octyloxy)propoxy]-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

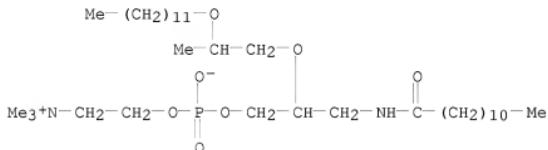


RN 178173-00-7 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[3-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 178173-01-8 USPATFULL  
 CN 3,5-Dioxa-9-aza-4-phosphaheneicosan-1-aminium, 7-[2-(dodecyloxy)propoxy]-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)

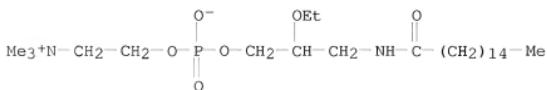


L4 ANSWER 23 OF 23 USPATFULL on STN  
 ACCESSION NUMBER: 1998:72609 USPATFULL  
 TITLE: Method of treating hepatitis virus infections  
 INVENTOR(S): Kucera, Louis S., Pfafftown, NC, United States  
 Morris-Natschke, Susan L., Apex, NC, United States  
 PATENT ASSIGNEE(S): Wake Forest University, Winston-Salem, NC, United States (U.S. corporation)  
 University of North Carolina, Chapel Hill, NC, United States (U.S. corporation)

	NUMBER	KIND	DATE
PATENT INFORMATION:	US 5770584		19980623
APPLICATION INFO.:	US 1995-465947		19950606 (8)
RELATED APPLN. INFO.:	Continuation-in-part of Ser. No. US 1993-74943, filed on 10 Jun 1993, now abandoned		
DOCUMENT TYPE:	Utility		
FILE SEGMENT:	Granted		
PRIMARY EXAMINER:	Wilson, James O.		
LEGAL REPRESENTATIVE:	Schwegman, Lundberg, Woessner & Kluth, P.A.		
NUMBER OF CLAIMS:	14		
EXEMPLARY CLAIM:	1		
NUMBER OF DRAWINGS:	1 Drawing Figure(s); 1 Drawing Page(s)		
LINE COUNT:	1527		
CAS INDEXING IS AVAILABLE FOR THIS PATENT.			
AB	A method of treating hepatitis virus infection is disclosed. The method comprising administering to a human subject in need of such treatment an effective hepatitis virus-combatting amount of an alkyl lipid or alkyl lipid derivative.		

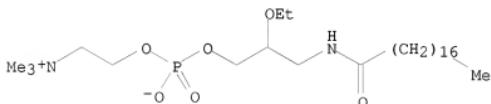
CAS INDEXING IS AVAILABLE FOR THIS PATENT.  
 IT 112989-01-2P 112989-02-3P 209532-02-5P  
 209532-03-6P  
 (alkyl lipids for treating hepatitis virus infections)  
 RN 112989-01-2 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 112989-02-3 USPATFULL

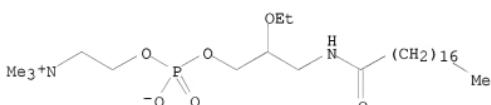
CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide (9CI) (CA INDEX NAME)



RN 209532-02-5 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphahexacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

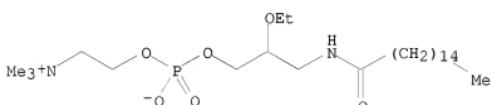
Rotation (+).



RN 209532-03-6 USPATFULL

CN 3,5-Dioxa-9-aza-4-phosphapentacosan-1-aminium, 7-ethoxy-4-hydroxy-N,N,N-trimethyl-10-oxo-, inner salt, 4-oxide, (+)- (9CI) (CA INDEX NAME)

Rotation (+).



=> d his

(FILE 'HOME' ENTERED AT 14:01:05 ON 22 FEB 2008)

FILE 'REGISTRY' ENTERED AT 14:01:16 ON 22 FEB 2008

L1 STRUCTURE UPLOADED  
L2 70 S L1 FULL

FILE 'MEDLINE, CAPLUS, WPIDS, USPATFULL' ENTERED AT 14:01:45 ON 22 FEB  
2008

L3           48 S L2  
L4           23 S L3 AND ?VIRUS?  
L5        127186 S L4 AND CORONAVIRUS OR HERPES OR TOGAVIRUS  
L6        12 S L4 AND (CORONAVIRUS OR HERPES OR TOGAVIRUS)

=>

---Logging off of STN---

=>

Executing the logoff script...

=> LOG Y

COST IN U.S. DOLLARS	SINCE FILE	TOTAL
	ENTRY	SESSION
FULL ESTIMATED COST	224.29	402.86
DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS)	SINCE FILE	TOTAL
	ENTRY	SESSION
CA SUBSCRIBER PRICE	-11.20	-11.20

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